Claims 18-20 have been withdrawn from consideration.

Claim 21 has been added.

II. Claim rejections under 35 U.S.C. § 102(b)

The Examiner has rejected claims 1, 15, and 16 under 35 U.S.C. § 102(b) over Luhman (U.S. 5,536,044).

Claim 1 requires a system for binding sheets that comprises "an adhesive dispenser configured to dispense across the thickness dimension of a text body spine solid sheet adhesive having one of multiple effective widths sized to correspond substantially to the length dimension of the text body spine." The Examiner has asserted that (emphasis added):

> Luhman et al. discloses a system for binding sheets into bound text bodies having respective spines exposed for adhesive application (abstract; Figure (*sic*) which includes an adhesive dispenser (Figure 6, adhesive handling subsystem 92) configured to dispense across the thickness dimension of a text body spine a solid sheet adhesive having one of multiple effective widths sized to correspond to the length dimension of the text body spine (column 6, line 66 through column 7, line 41). ...

Contrary to the Examiner's assertion, however, Luhman's apparatus for hot melt binding a stack of papers does not include an adhesive dispenser configured to dispense solid sheet adhesive across the thickness dimension of a text body spine. Luhman explains that (col. 7, lines 16-26):

> A measuring guide 116 is printed on the base plate 16 perpendicular to the plane of the front wall 18 in the direction of adhesive material movement. As adhesive material 94 is fed in front of the front wall 18, the desired amount can be measured by the measuring guide 116 to permit dispensing the desired amount of adhesive. When the desired amount of adhesive material 94 is unwound from the roll 96, lever 114 is released and the cutting blade 112 is lowered to a position in which it clamps the adhesive material 94 between the base plate 16 and itself to permit manual tearing of the adhesive material 94.

FIG. 2 clearly shows that, in Luhman's paper binding apparatus, the hot melt adhesive 94 is dispensed over base plate 16, not across the thickness dimension of a text body spine.

Indeed, in the following description, Luhman explains that the user must manually place the hot melt adhesive 94 on the edge 13 of paper stack 12 after tearing the adhesive material 94 across the cutting blade 94 (col. 9, lines 42-49):

> The width of the clamped stack of paper 12 is measured with ruler 117 and a corresponding width of adhesive hot melt material sheet 94 is fed from the roll of adhesive material 96 as measured by measuring guide 116. This desired amount of adhesive material 94 is cut from the roll 96 by tearing the adhesive material 94 across the cutting blade 112 and is placed on the presented edge 13 of the stack 12.

Since Luhman does not teach or suggest the adhesive dispenser recited in claim 1, Luhman does not anticipate the claim under 35 U.S.C. § 102(b). For at least this reason, the Examiner's rejection of independent claim 1 under 35 U.S.C. § 102(b) over Luhman should be withdrawn.

Dependent claims 15 and 16 incorporate the features of independent claim 1 and therefore are patentable for at least the same reasons explained above.

III. Claim rejections under 35 U.S.C. § 103(a)

A. Claims 2-6, 11, and 12

The Examiner has rejected claims 2-6, 11, and 12 under 35 U.S.C. § 103(a) over Luhman in view of Mallonee (U.S. 5,460,672).

Dependent claims 2-6, 11, and 12 incorporate the features of independent claim 1 and therefore are patentable for at least the same reasons explained above. These claims also are patentable for the following additional reasons.

Claim 2 requires that the adhesive dispenser be "configured to dispense multiple segments of solid sheet adhesive along the length dimension of the text body spine." The Examiner has indicated that:

> Luhman et al. does not disclose a system in which the adhesive dispenser is configured to simultaneously dispense multiple segments of solid sheet adhesive along the length dimension of the text body spine. Mallonee discloses a web material dispenser which is configured to simultaneously dispense multiple segments of solid sheet material along a length dimension. When utilizing the apparatus of Luhman et al. to

> binding oversized books, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the adhesive dispenser of Luhman et al. to simultaneously dispense and join multiple segments of standard sized solid sheet adhesive webs as suggests by Mallonee to accommodate the length of oversized books.

MPEP § 2141.01(a) quotes *In re Oetiker*, 977 F.2d 1443, 1446 (Fed. Cir. 1992) for the rule that:

> In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned.

According to Mallonee, his disclosure "relates to the field of equipment and methods for making textile fabrics, and more particularly, to an apparatus and method for making a relatively wide textile fabric from a plurality of textile webs joined together in side-by-side relative" (col. 1, lines 6-10). The field of making textile fabrics clearly is not the same as the field of binding sheets into bound text bodies. In addition, the field of making textile fabrics is not reasonably pertinent to the problem of binding sheets into bound text bodies with a system that includes an adhesive dispenser configured to dispense solid sheet adhesive across the thickness dimension of a text body spine, which is the subject of the invention recited in claims 2-6, 11, and 12. Indeed, solid sheet adhesive is not used in the field of making relatively wide textile fabric webs, "such as nonwoven textile webs used for bedding products" (col. 1, lines 15-16). Accordingly, a person of ordinary skill, seeking to solve a problem of binding sheets into bound text bodies with solid sheet adhesive, would not reasonably be expected or motivated to look to apparatus and methods for making textile fabrics, even in the case suggested by the Examiner of "binding oversized books."

For at least this reason, the Examiner's reliance on Mallonee in the rejection of claims 2-6, 11, and 12 is improper. Since the Examiner has acknowledged that Luhman fails to teach or suggest the invention recited in claims 2-6, 11, and 12, the Examiner's rejection of these claims under 35 U.S.C. § 103(a) over Luhman in view of Mallonee should be withdrawn.

In addition, the improper combination of Luhman and Mallonee proposed by the Examiner would not teach or suggest all of the limitations recited in these claims. Indeed, each of claims 2-6, 11, and 12 requires that the adhesive dispenser be "configured to dispense

multiple segments of solid sheet adhesive along the length dimension of the text body spine." The Examiner has relied on the teaching of Mallonee to make up for Luhman's failure to teach or suggest such a feature. Mallonee's textile web joining apparatus, however, does not *dispense* multiple segments of textile webs, contrary to the Examiner's assertion. Indeed, the entire purpose of Mallonee's invention is to *join* a plurality of textile webs together in side-by-side relation. Furthermore, Mallonee's textile web joining apparatus is not configured to dispense a sheet across the thickness dimension of a text body spine. Rather, Mallonee's textile web joining apparatus is suitable only for taking up the resulting joined textile web in a roll. Accordingly, since neither Luhman nor Mallonee teaches or suggests a dispenser that is configured to *dispense* multiple segments of solid sheet adhesive, the combination of Luhman and Mallonee hardly would teach or suggest such a feature.

For at least this additional reason, the Examiner's rejection of claims 2-6, 11, and 12 under 35 U.S.C. § 103(a) over Luhman in view of Mallonee should be withdrawn.

B. Claim 7

The Examiner has rejected claim 7 under 35 U.S.C. § 103(a) over Luhman in view of Mallonee and Dim (U.S. 6,460,843).

Dependent claim 7 incorporates the features of claims 1, 2, and 6 and therefore is patentable for at least the same reasons explained above. Claim 7 also is patentable for the following additional reason.

Claim 7 requires that the adhesive dispenser comprise a roller system, which includes a drive shaft supporting multiple drive rollers, for dispensing multiple segments of solid sheet adhesive. The Examiner has relied on the teaching of Dim to make up for the failure of Luhman and Mallonee to teach or suggest such a feature. In particular, the Examiner has indicated that:

> Dim et al. discloses a paperback finishing machine which includes a roller system having a drive shaft supporting multiple drive rollers Figure 5.

There is no teaching or suggestion in Dim that would have motivated one of ordinary skill in the art at the time of the invention to modify the motorized shaft 43 in the cover trimmer 21 of FIG. 5 to dispense multiple segments of solid sheet adhesive, as required by claim 7. There certainly is no teaching or suggestion in Dim that would have led one of

ordinary skill in the art to guide multiple segments of cover 19. Indeed, such a multi-segment cover would not appear to serve any useful purpose. Since none of the cited references teaches or suggests this feature of claim 7, the combination of such references hardly would teach or suggest such a feature.

For at least this additional reason, the Examiner's rejection of claim 7 under 35 U.S.C. § 103(a) over Luhman in view of Mallonee and Dim should be withdrawn.

C. Claim 8

The Examiner has rejected claim 8 under 35 U.S.C. § 103(a) over Luhman in view of Mallonee, Dim, and Nakamura (U.S. 5,842,691).

Dependent claim 8 incorporates the features of claims 1, 2, 6, and 7 and therefore is patentable for at least the same reasons explained above. Claim 8 also is patentable for the following additional reason.

Claim 8 requires that the adhesive dispenser comprise "a motor for driving the drive shaft, and a clutch disposed between a pair of drive rollers [that] enables one or both drive rollers of the drive roller pair to be driven selectively by the motor." The Examiner has relied on the teaching of Nakamura to make up for the failure of Luhman, Mallonee, and Dim to teach or suggest such a feature. In particular, the Examiner has indicated that:

> It is well known and conventional in web handling apparatus art, as disclosed by Nakamura (column 7, lines 21-25), to use a motor for driving the drive shaft and a clutch for enabling the drive rollers to be driven by the motor.

The feed clutch 72 in the feed roll system that is shown in FIG. 5 of Nakamura, however, does not include a clutch disposed between a pair of drive rollers that enables one or both drive rollers of the drive roller pair to be driven selectively by the motor, as recited in claim 8. Moreover, Nakamura's image formation apparatus (i.e., copier) is designed to feed single, complete sheets of paper, not multiple segments of solid sheet adhesive. Accordingly, there would be no motivation to modify Nakmura (or any of the other cited references) to include a clutch disposed between a pair of drive rollers that enables one or both drive rollers of the drive roller pair to be driven selectively by the motor, as recited in claim 8. Since none of the cited references teaches or suggests this feature of claim 8, no permissible combination of these references would teach or suggest such a feature.

For at least this additional reason, the Examiner's rejection of claim 8 under 35 U.S.C. § 103(a) over Luhman in view of Mallonee, Dim, and Nakamura should be withdrawn.

D. Claim 9

The Examiner has rejected claim 9 under 35 U.S.C. § 103(a) over Luhman in view of Mallonee, Kuhns (U.S. 3,953,277), and Steinberg (U.S. 6,129,796).

Dependent claim 9 incorporates the features of claims 1 and 2 and therefore is patentable for at least the same reasons explained above. Claim 9 also is patentable for the following additional reasons.

Claim 9 further requires an adhesive quantity interrogator configured to obtain indications of the length of each solid sheet adhesive segment remaining in a plug-in cartridge housing. The Examiner has relied on the teachings of Kuhns and Steinberg to make up for the failure of Luhman and Mallonee to teach or suggest such a feature. In particular, the Examiner has indicated that:

> Kuhns discloses a bookbinding apparatus which includes a plug-in cartridge housing (Figure 1, cartridge 57) containing a roll of solid sheet adhesive (Figure 1, adhesive bearing strip 30). It is well known and conventional in the material dispensing art, as disclosed by Steinberg et al. (column 8, lines 51-53), to use a quantity interrogator to determine the remaining amount of material on a spool. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the apparatus of Luhman et al. with a plug-in cartridge housing as suggested by Kuhns to ease replenishment of the adhesive sheet material and an adhesive quantity interrogator configured as suggested by Steinberg et al. to obtain indications of the length of each solid sheet adhesive segment remaining in a plug-in cartridge housing.

Kuhns merely discloses a bookbinder that is configured to dispense a single strip of adhesive from a cartridge 57. Kuhns does not teach or suggest anything about dispensing multiple segments of solid sheet adhesive along the length dimension of a text body spine. Steinberg discloses a system and method for dispensing and labeling a length of cord, "such as rope cable, wire, chain and electrical cord" (col. 1, line 25). Steinberg's dispensing system, like Kuhn's adhesive cartridge, merely dispensing a single element; Steinberg does not teach or suggest anything about dispensing multiple cords from a spool, much less

anything about dispensing multiple segments of solid sheet adhesive. Moreover, contrary to the Examiner's assertion, Steinberg does not teach or suggest anything about a "quantity interrogator [that is configured] to determine the remaining amount of material on a spool." The only disclosure in Steinberg relating to determining the remaining amount of material on a spool is as follows (col. 4, lines 7-14):

> The spool 26 may also carry a visual indication for displaying the approximate amount of cord left on spool. For example, as shown in FIG. 8, spool 26 may include a colored, pie shaped portion 29 having markings, preferably 1/4, 1/2 and 3/4 for indicating how much of the cord is left on the spool. Alternatively, the visual indication may include other shapes, such as a thermometer, etc., as would be known to one of skill in the art.

That is, Steinberg's cord dispensing system does not include a "quantity interrogator [that is configured] to determine the remaining amount of material on a spool," as asserted by the Examiner. Instead, in Steinberg's approach, the cord spool merely includes a marking that provides a visual indication to a user how much cord remains on a spool.

In sum, none of the cited references teaches or suggests a quantity interrogator configured to obtain an indication of the length of material remaining in a plug-in cartridge housing, nor do any of the references teach or suggest anything about an adhesive quantity interrogator configure to obtain an indication of the length of each of multiple solid sheet adhesive segments remaining in a plug-in cartridge housing. Accordingly, no permissible combination of the cited references could teach or suggest these features of claim 9.

For at least these additional reasons, the Examiner's rejection of claim 9 under 35 U.S.C. § 103(a) over Luhman in view of Mallonee, Kuhns, and Steinberg should be withdrawn.

E. Claim 10

The Examiner has rejected claim 10 under 35 U.S.C. § 103(a) over Luhman in view of Mallonee, Kuhns, Steinberg, and Whiteman (U.S. 3,582,010).

Dependent claim 10 incorporates the features of claims 1, 2, and 9 and therefore is patentable for at least the same reasons explained above. Claim 10 also is patentable for the following additional reasons.

Claim 10 further requires "a controller configured to transmit a warning message when any of the solid sheet adhesive segments is nearly spent." The Examiner has relied on the teachings of Whiteman to make up for the failure of Luhman, Mallonee, Kuhns, and Steinberg to teach or suggest such a feature. In particular, the Examiner has indicated that:

> It is well known and conventional in the material dispensing art, as taught by Whiteman (column, 6, lines 43-50), to use a controller to detect when a material supply is almost depleted. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the apparatus f Luhman et al. with a conventional controller as suggested by Whiteman to detect and alert a user of the depletion of the adhesive sheet supply.

Whiteman's disclosure relates to an apparatus for making a strip conductor coil from a ribbon or strip of electrically conductive material. The field of making ribbon coils is not the same as the field of binding sheets into bound text bodies. In addition, the field of making ribbon coils is not reasonably pertinent to the problem of binding sheets into bound text bodies with a system that includes an adhesive dispenser configured to dispense solid sheet adhesive across the thickness dimension of a text body spine, which is the subject of the invention recited in claim 10. Indeed, solid sheet adhesive is not used in the field of making ribbon coils. Accordingly, a person of ordinary skill, seeking to solve a problem of binding sheets into bound text bodies with solid sheet adhesive, would not reasonably be expected or motivated to look to apparatus and methods for making ribbon coils.

For at least this reason, the Examiner's reliance on Whiteman in the rejection of claim 10 is improper. Since the Examiner has acknowledged that the other cited references fail to teach or suggest the invention recited in claim 10, the Examiner's rejection of claim 10 under 35 U.S.C. § 103(a) over Luhman in view of Mallonee, Kuhns, Steinberg, and Whiteman should be withdrawn.

In addition, contrary to the Examiner's assertion, Whiteman fails to teach or suggest "a controller configured to transmit a warning message when any of the solid sheet adhesive segments is nearly spent," as recited in claim 10. In the section of Whiteman cited by the Examiner (col. 6, lines 43-50), Whiteman merely teaches that the coil winding station operates at a substantially constant speed until the ribbon supply roll is nearly completely unwound, at which point the coil winding station operates at a substantially reduced "jog"

speed. No "warning message" is transmitted by Whiteman's coil winding station. Accordingly, none of the cited references teaches or teaches this feature of claim 10.

For at least these additional reasons, the Examiner's rejection of claim 10 under 35 U.S.C. § 103(a) over Luhman in view of Mallonee, Kuhns, Steinberg, and Whiteman should be withdrawn.

F. Claim 13

The Examiner has rejected claim 13 under 35 U.S.C. § 103(a) over Luhman in view of Mallonee and Kuhns.

Dependent claim 13 incorporates the features of claims 1, 2, and 12 and therefore is patentable for at least the same reasons explained above. Claim 13 also is patentable for the following additional reason.

Claim 13 requires that the adhesive dispenser be "configured to position a plug-in cartridge housing containing a roll of solid sheet adhesive at multiple locations along the length dimension of the text body spine." The Examiner has relied on the teachings of Kuhns and Steinberg to make up for the failure of Luhman and Mallonee to teach or suggest such a feature. In particular, the Examiner has indicated that:

> Kuhns discloses a bookbinding apparatus which includes an adhesive dispenser configured to position a plug-in cartridge housing (Figure 1, cartridge 57) containing a roll of solid sheet adhesive (Figure 1, adhesive bearing strip 30) along the text body spine.

Kuhns merely discloses a bookbinder that is configured to dispense a single strip of adhesive from a cartridge 57. Kuhns does not teach or suggest anything about positioning a plug-in cartridge housing at multiple locations along the length dimension of the text body spine. In Kuhn's bookbinder, cartridge 57 remains stationary. Indeed, cartridge 57 dispensing adhesive in the direction of the length dimension of the stack of paper sheets 17. Accordingly, positioning cartridge 57 at multiple locations would not serve any useful purpose.

For at least this additional reason, the Examiner's rejection of claim 13 under 35

F. Claim 14

The Examiner has rejected claim 14 under 35 U.S.C. § 103(a) over Luhman.

Dependent claim 14 incorporates the features of claim 1 and therefore is patentable for at least the same reasons explained above.

G. Claim 17

The Examiner has rejected claim 17 under 35 U.S.C. § 103(a) over Luhman in view of Mallonee and Leifeld (U.S. 4,839,943).

Dependent claim 17 incorporates the features of claims 1 and 14 and therefore is patentable for at least the same reasons explained above.

Claim 17 requires that the adhesive dispenser comprise "a waste reservoir configured to store excess solid sheet adhesive cut by the width cutter. The Examiner has relied on the teachings of Leifeld to make up for the failure of Luhman and Mallonee to teach or suggest such a feature. In particular, the Examiner has indicated that:

> It is well known and conventional in the waste material handling art, as disclosed by Leifeld (Figure 1, waste container 15), to provide a container for storing waste materials. When modifying the apparatus of Luhman et al. as noted above to include a width cutter, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the adhesive dispenser with a waste reservoir as suggested by Leifeld for storing the excess trimmed solid sheet adhesive.

According to Leifeld, his "invention relates to an apparatus for detecting foreign bodies such as foreign fibers, tying strings, bands of synthetic material, wire pieces and the like within or between textile fiber tufts, particularly cotton and/or synthetic fiber tufts" (col. 1, lines 6-10). The field of detecting foreign bodies in textile fiber tufts is not the same as the field of binding sheets into bound text bodies. In addition, the field of detecting foreign bodies in textile fiber tufts is not reasonably pertinent to the problem of binding sheets into bound text bodies with a system that includes an adhesive dispenser configured to dispense solid sheet adhesive across the thickness dimension of a text body spine, which is the subject of the invention recited in claim 17. Indeed, solid sheet adhesive is not used in the field of detecting foreign bodies in textile fiber tufts. Accordingly, a person of ordinary skill, seeking

to solve a problem of binding sheets into bound text bodies with solid sheet adhesive, would not reasonably be expected or motivated to look to apparatus and methods for detecting foreign bodies in textile fiber tufts.

For at least this reason, the Examiner's reliance on Liefeld in the rejection of claim 17 is improper. Since the Examiner has acknowledged that the other cited references fail to teach or suggest the invention recited in claim 17, the Examiner's rejection of claim 17 under 35 U.S.C. § 103(a) over Luhman in view of Mallonee and Leifeld should be withdrawn for this additional reason.

IV. Conclusion

For at least the reasons explained above, all claims are in condition for allowance and should be allowed.

Charge any excess fees or apply any credits to Deposit Account No. 08-2025.

Respectfully submitted,

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